



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/176,580	10/21/1998	RAMESH SUNDARAM	S01.12-0460	2038

7590 11/04/2003
PETER S DARDI
WESTMAN CHAMPLIN & KELLY
SUITE 1600 INTERNATIONAL CENTRE
900 SECOND AVENUE SOUTH
MINNEAPOLIS, MN 554023319

EXAMINER

VERBITSKY, GAIL KAPLAN

ART UNIT	PAPER NUMBER
----------	--------------

2859

DATE MAILED: 11/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/176,580

Applicant(s)

SUNDARAM ET AL.

Examiner

Gail Verbitsky

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,4-7,9-14,16,18,20,21 and 23-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,4-7,9-14,16,18,20,21 and 23-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2859

DETAILED ACTION

Specification

1. Specification is finally objected because, it is not clear from the specification if the method steps claimed in claims 18, 21 and 26 refer to conventional (previous) practices or to the preferred embodiment. Appropriate correction/ clarification is required. No new matter should be entered.
2. It appears that the newly added limitations including “contoured disc facing surface” and the “thickness portion forming a contour profile of the contoured disc facing surface” of the glide body have not been described in the specification.

Drawings

3. The drawings are finally objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “contoured disc facing surface” and the “thickness portion forming a contour profile of the contoured disc facing surface of the glide body” must be shown or the feature(s) canceled from the claim(s) 2, 16, 28. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Art Unit: 2859

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 2, 16, 18, 21, 26, 28 are finally rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In this case, it is not clear whether the method steps (depositing the transducers on the glide bodies already sliced from the wafer), as stated in claims 18, 21, and (depositing the transducers prior to slicing), as stated in claim 26, described in the specification refer to conventional (previous) practices or to the preferred embodiment. It appears, that the specification in page 6, lines 18-27, refers to *placing transducers on the wafer prior to cutting the wafer* (claim 26), as a conventional method (“under previous practices”). However, in page 14, lines 17-28, Applicant refers to *placing transducers prior to slicing wafer*, as a preferred approach/ method. Therefore, it is not clear from the specification whether the method of *placing the transducers onto the wafer prior to slicing* is a conventional or preferred method. Thus, it is not clear whether the method of *slicing the wafer prior to placing the transducers*, as claimed in claim 18, is a conventional or preferred method.

Claims 2, 16, 28: the “thickness portion forming a contour profile of the contoured disc facing surface of the glide body” has not been described in the specification.

Art Unit: 2859

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 2, 16, 18, 20, 26, 28 and 4-7, 9-14, 20-21, 23-24, 29 are finally rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In this case, the claim language is confusing due to the reasons stated above in paragraph 5.

Claims 4-7, 9-14, 20-21, 23-24, 29 are rejected by virtue of their dependency on claims 2, 16, 18, 28.

Claim Objections

8. Claims 2, 4-5, 21, 27-28 are finally objected to because of the following informalities: the preamble of the claims dependent on claim 2 should be replaced with --"The glide test system-- .

Claim 2: Perhaps Applicant should insert --wherein-- before "the thickness" in line 13 in order to clearly describe the invention.

Claims 2, 28: it is not clear from the claim language if the contoured disc facing surface is an ABS.

Claim 21: Perhaps applicant should insert --surface-- after "air bearing" in line 3 in order to clearly describe the invention.

Claim 27: A) "the at least one bond pad" in line 10 lacks antecedent basis

B) It appears that a new limitation has been added by Applicant to claim 27 by the present amendment.

However, since the claim is marked as "original" in the present amendment, the new limitation has not been considered by the Examiner. Appropriate correction is required.

Art Unit: 2859

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

10. Claims 2, 4-6, 10-11, 14, 16, 20, 23, 25- 29 (as best understood by the Examiner) are finally rejected under 35 U.S.C. 102(e) as being anticipated by Boutaghou et al. (U.S. 5808184) [hereinafter Boutaghou].

Boutaghou discloses in Figs. 1-4 and 13 a device/ glide test system having a thermal asperity sensor comprising a slider body 12 having a leading edge A, trailing edge, a contoured (having rails) disc facing surface C. The surface C has a raised bearing surface D (26) elevated from a recessed bearing surface E. The device also has transducers (plurality of magnetoresistive sensors/ MR) 18 spaced apart along the length of rails (elevated/ raised bearing surface) 26 of an air bearing surface 14 ABS (col. 6, lines 6-7 and Fig. 1). Each transducer has layers, thus, constituting a thin (having thickness/ height) flat (col. 7, line 20) asperity contacting surface (length) oriented along the ABS. As shown in Fig. 1, the transducers are oriented along (portion extending) the ABS. Inherently, the thickness of the transducer is forming a contour profile of the contoured disc facing surface and is intersecting (contacting) with its portion extending along the ABS.

Art Unit: 2859

For claim 10: the transducers extend substantially from the leading edge to the trailing edge, as shown in Fig. 4.

For claim 14: Boutaghou states that the transducer can be a PZT (col. 2, line 14),

For claim 26: Boutaghou states that the transducers are fabricated at the wafer level (col. 3, line 22), i.e., prior to slicing.

For claim 29: It is inherent that the ABS must be fabricated prior to depositing the thermal transducers onto it and thus, onto the raised bearing surface of the ABS. (The numerals A- F have been added by the Examiner, see attachment to the Office Action).

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Response to Arguments

12. Applicant's arguments filed on August 08, 2003 have been fully considered but they are not persuasive.

Art Unit: 2859

CV Applicant states that the fabrication process is when the transducers are placed onto the ^{*preferred*} ~~glides sliced~~ ^{*(after slicing)*} from the wafer and refers to the specification, page 14, lines 4-16. However, it appears that this paragraph is a continuation of the previous paragraph (page 13, line 29-34 and page 14, lines 1-3) which describes a conventional method, while the paragraph in page 14, lines 17-28 describes the method of placing of transducers onto the wafer prior to slicing as a preferred approach(*method*).

CV Applicant states that the added limitation (the thickness portion forming a contour profile of the contoured disc facing surface relative to the raised bearing surface) is not taught by Boutaghou. This argument is not persuasive because, ~~A)~~ since this new limitation has not been shown in the drawings or clearly described in the specification, ^{*and*} ~~B)~~ as best understood by the Examiner, this limitations is shown in the Boutaghou, please refer to paragraph 10 of the Office action.

Allowable Subject Matter

13. Claims 7, 9, 12-13, 18, 21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2859

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication should be directed to the examiner Verbitsky whose telephone number is (703) 306-5473.

Any inquiry related to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-0956.

GKV

31 October 2003

Gail Verbitsky



Patent Examiner, TC 2800

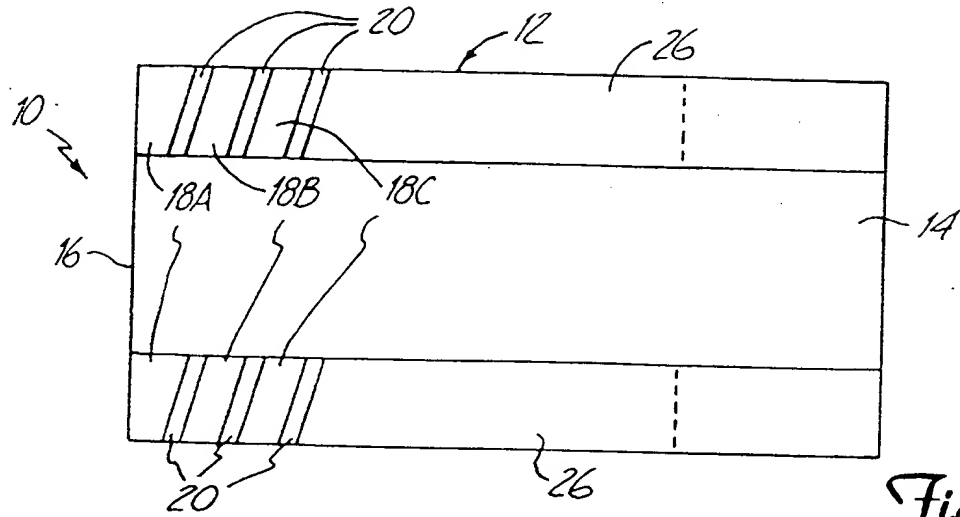


Fig. 8

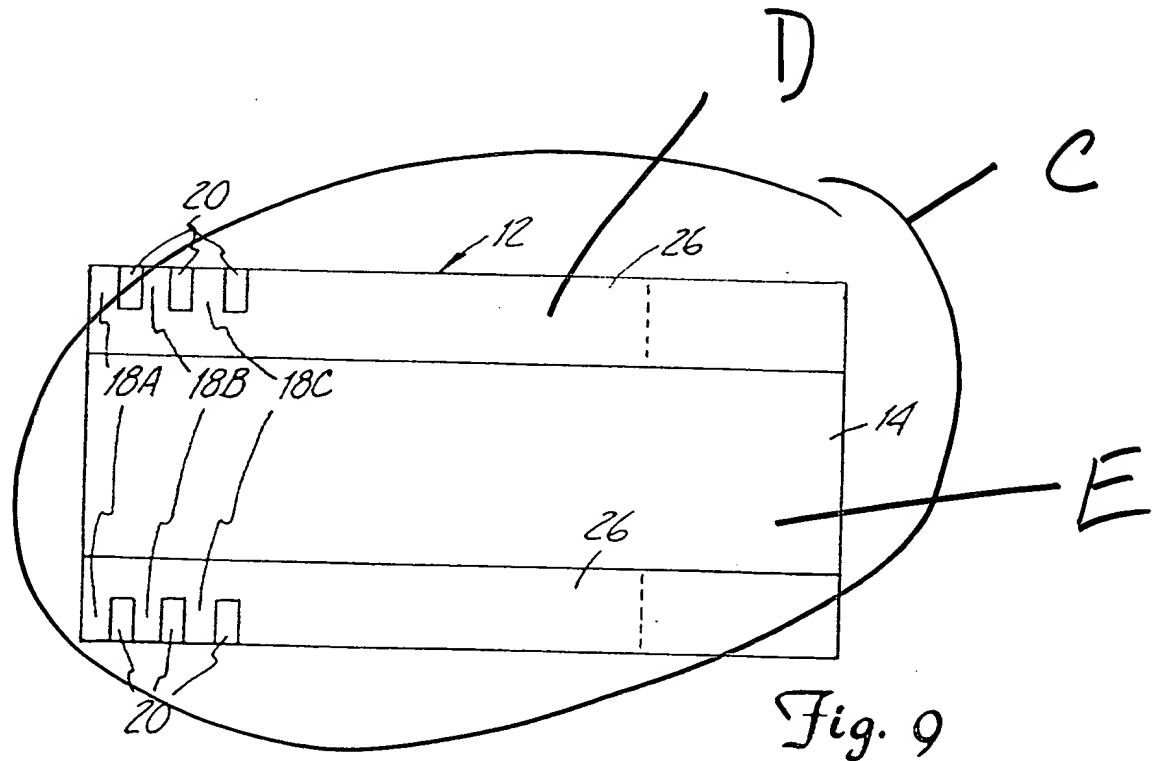


Fig. 9

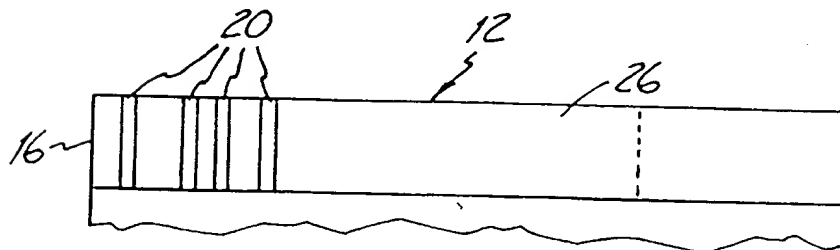


Fig. 10

attachment #1